

IN THE CLAIMS

Please amend the claims as follows:

1. (Original) A circuit comprising:
a first bridge transducer;
a second bridge transducer coupled in series with the first bridge transducer and a supply;
a first differential amplifier having inputs coupled to the first bridge transducer; and
a second differential amplifier having inputs coupled to the second bridge transducer,
wherein the first and second differential amplifiers each have a pair of outputs, respective ones of which are coupled to provide two outputs of the circuit representative of a sensed parameter.
2. (Original) The circuit of claim 1 wherein the first and second bridge transducers comprise Hall effect sensors.
3. (Original) The circuit of claim 1 wherein the supply comprises a regulated voltage.
4. (Original) The circuit of claim 1 wherein the first and second differential amplifiers are coupled in a push-pull relationship.
5. (Original) The circuit of claim 1 wherein the first differential amplifier comprises a pair of npn transistors and the second differential amplifier comprises a pair of pnp transistors.
6. (Original) The circuit of claim 1 wherein the output comprises a load coupled between the outputs.
7. (Original) A circuit comprising:
a first bridge transducer;
a second bridge transducer coupled in series with the first bridge transducer and a supply;
a first differential amplifier having inputs coupled to the first bridge transducer; and

a second differential amplifier having inputs coupled to the second bridge transducer, wherein the first and second differential amplifiers each have a pair of outputs, respective ones of which are coupled to provide two outputs of the circuit representative of a sensed parameter.

8. (Currently Amended) A circuit comprising:
a first bridge transducer;
a second bridge transducer coupled in series with the first bridge transducer and a supply;
and
a pair of differential amplifiers having outputs tied together in a push-pull configuration.

9. (Original) The circuit of claim 8 and further comprising a load between the outputs and a point between the first and second bridge transducers.

10. (Original) The circuit of claim 8 and further comprising a pair of current mirrors coupled to one of the differential amplifiers.

11. (Original) The circuit of claim 8 and further comprising a pair of diode level shifters coupled to one of the differential amplifiers.

12. (Original) A circuit comprising:
a bottom bridge transducer;
a top bridge transducer coupled in series with the bottom bridge transducer and a supply;
a bottom differential amplifier having inputs coupled to the bottom bridge transducer;
a top differential amplifier having inputs coupled to the top bridge transducer, wherein the bottom and top differential amplifiers each have a pair of outputs, respective ones of which are coupled to provide two outputs of the circuit representative of a sensed parameter;
a load coupled between the two outputs and a point where the bottom and top bridge transducers are coupled;
a pair of current mirrors coupled to the top differential amplifier; and

a pair of level shift transistors coupled between the bottom differential amplifier and the bottom bridge transducer.

13. (Original) The circuit of claim 12, wherein the differential amplifiers each comprise a pair of npn transistors.

14. (Original) The circuit of claim 13, wherein the npn transistors of the top differential amplifier each have a base coupled to opposite corners of the bridge transducer, have a collector coupled to the current mirror and have an emitter coupled to a supply sinking current to ground.

15. (Original) The circuit of claim 13, wherein the npn transistors of the bottom differential amplifier each have a base coupled to opposite corners of the bridge transducers through the level shift transistors, and have a emitters coupled to current sources 320 and 325.

16. (Original) The circuit of claim 15 wherein the level shift transducers comprise pnp transistors, each having a base coupled to opposite corners of the bridge transducer.

17. (Original) The circuit of claim 12 wherein the first and second bridge transducers comprise Hall effect sensors.

18. (Original) The circuit of claim 17 wherein the Hall effect sensors are coupled at opposite corners to the differential amplifiers, and wherein the polarity of such corners are opposite each other.

19. (Currently Amended) A method comprising:

sensing a magnetic field with a first Hall effect transducer;

sensing a magnetic field with a second Hall effect transducer coupled in series with the first bridge transducer and a supply; and

amplifying the sensed magnetic fields with a pair of differential amplifiers having outputs tied together in a push-pull configuration.

20. (Original) A circuit comprising:
- means for sensing a magnetic field; and
 - means for amplifying the sensed magnetic fields with a pair of differential amplifiers
- having outputs tied together in a push-pull configuration.